

Recovery Planning Advisory Group



PROTECTING ARIZONA'S
WATER SUPPLIES
for ITS NEXT CENTURY



ARIZONA WATER BANKING AUTHORITY



YOUR WATER. YOUR FUTURE.



Agenda

1. Welcome and Introductions
2. Update on Colorado River Hydrology
3. Review of Planning Timeline under 2021 Joint Update
4. Summary of M&I Priority Subcontractor Firming Meetings
5. Review of CAP Recovery Capacity
6. Firming Agreements
 - a. AWBA Standard Intergovernmental Agreement for CAP M&I Firming
 - b. CAWCD Standard Firming Agreements
7. Member Roundtable
8. Next Steps
9. Public Comments

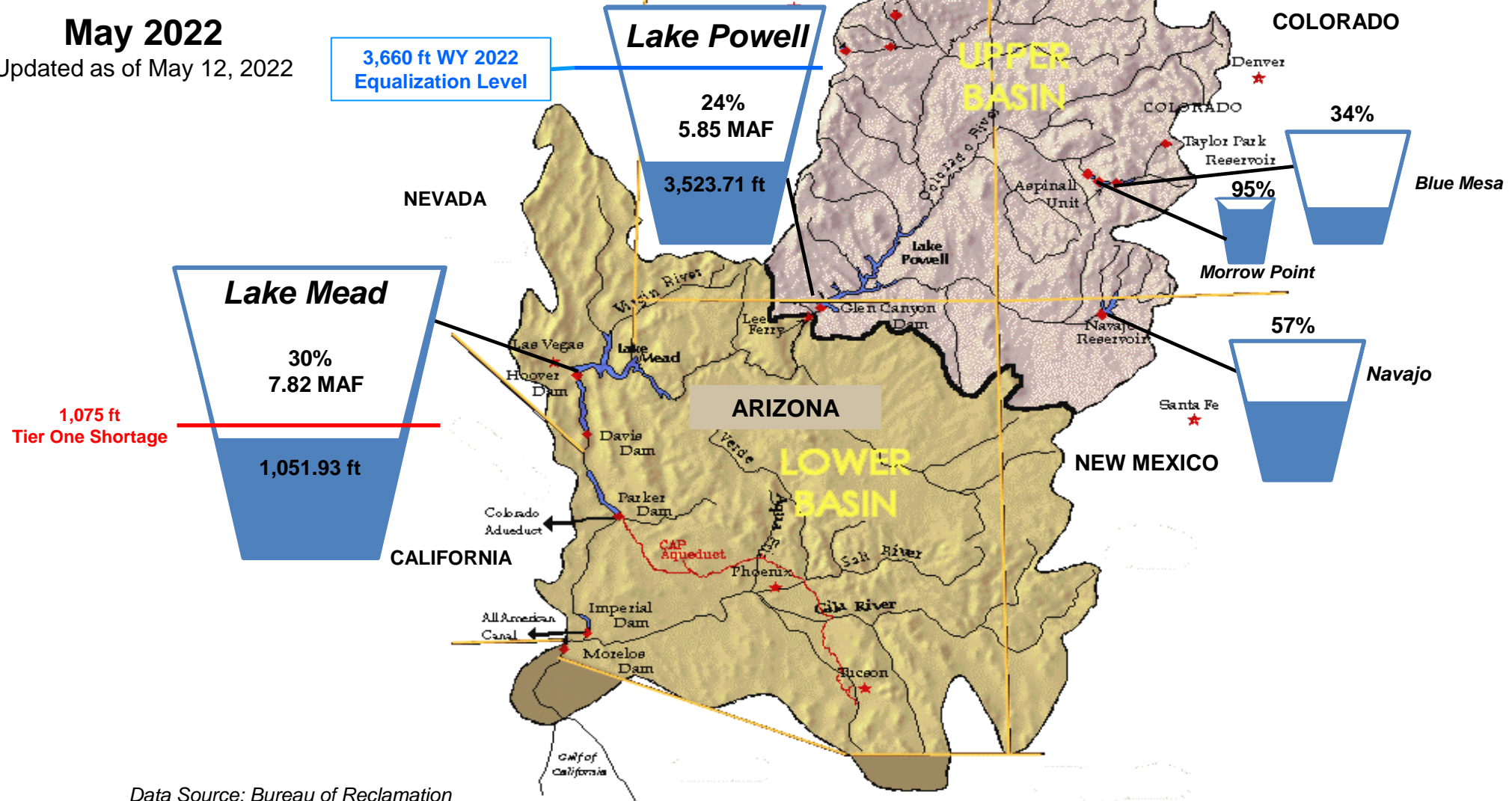
Colorado River System Reservoir Status

TOTAL SYSTEM CONTENTS – 34% or 20.32 MAF

Total system contents last year 42% or 25.28 MAF

May 2022

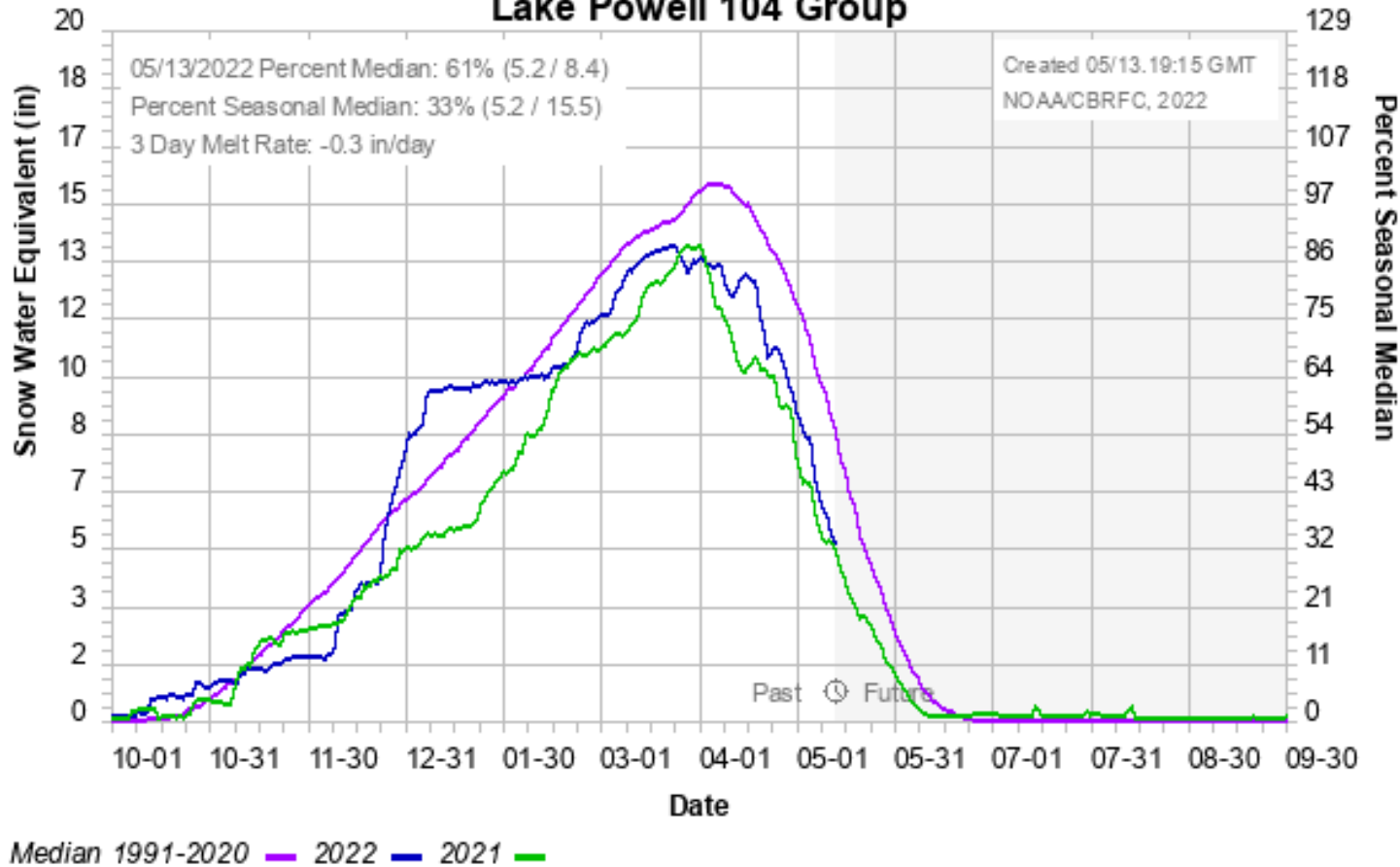
Updated as of May 12, 2022



Data Source: Bureau of Reclamation

Colorado River Hydrology

Colorado Basin River Forecast Center Lake Powell 104 Group



Colorado Basin River Forecast Center

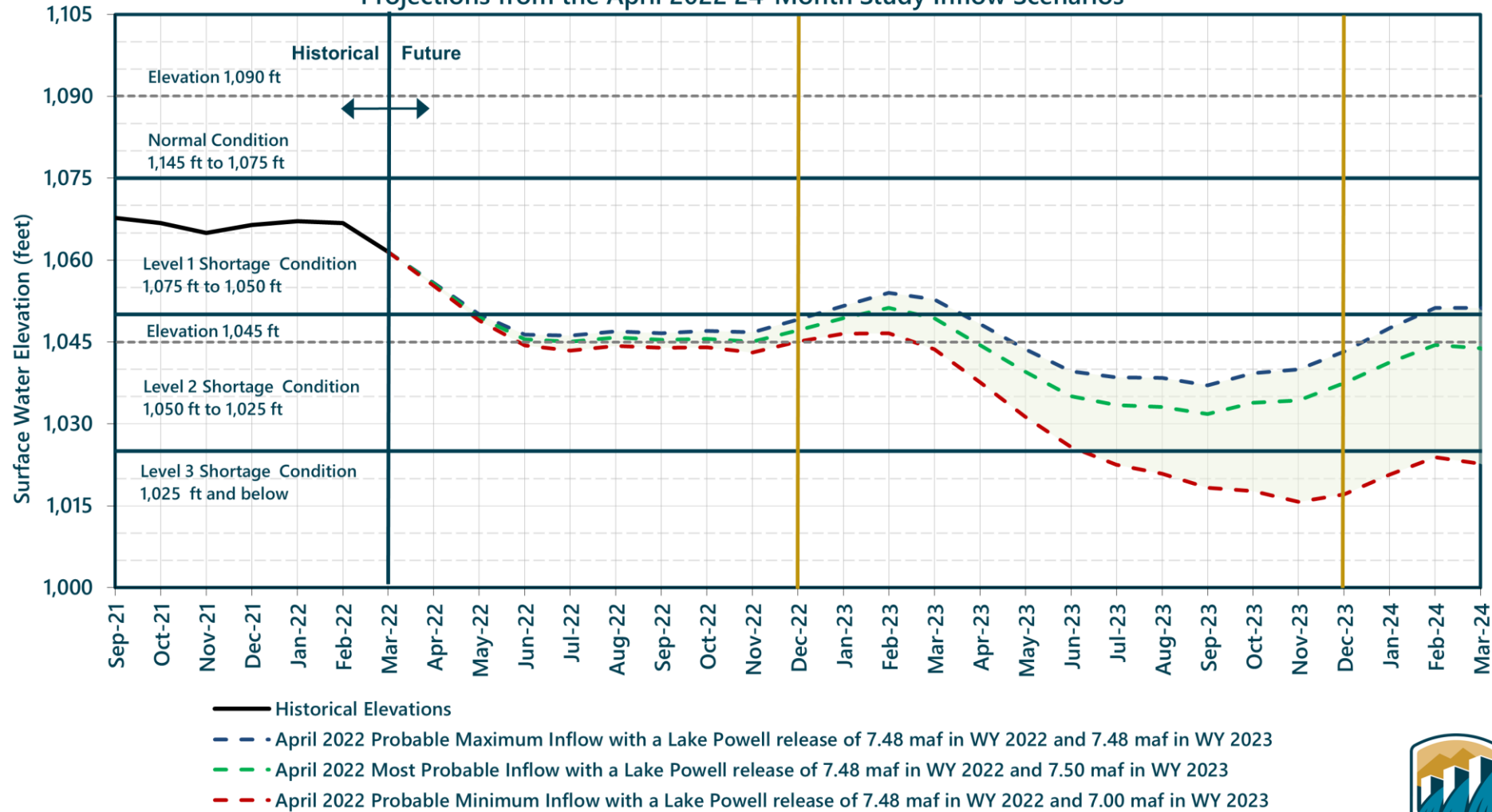
Published May 4, 2022

Forecasted Inflow	MAF	% of Average
April – July 2022	3.800	59%
Water Year 2022	5.981	62%

Dry soil, higher temperatures, and low precipitation have contributed to low runoff conditions.

Lake Mead End of Month Elevations

Projections from the April 2022 24-Month Study Inflow Scenarios



The Drought Response Operations Agreement (DROA) is available online at: <https://www.usbr.gov/dcp/finaldocs.html>.

End of CY 2022 Projections

Most Probable:
1,047.10 feet (29% full)

Probable Min/Max Range:
1,045.01 to 1,049.08 feet

End of CY 2023 Projections

Most Probable:
1,037.44 feet (26% full)

Probable Min/Max Range:
1,017.07 to 1,043.24 feet

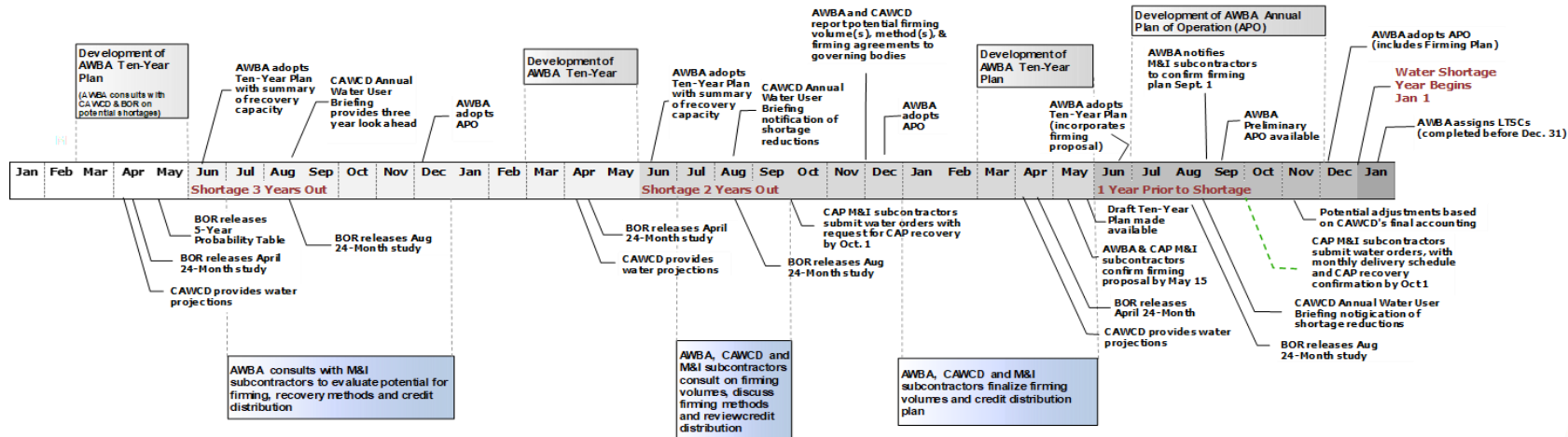


Recovery Implementation Timing & Triggers

Progressive planning triggers for M&I firming

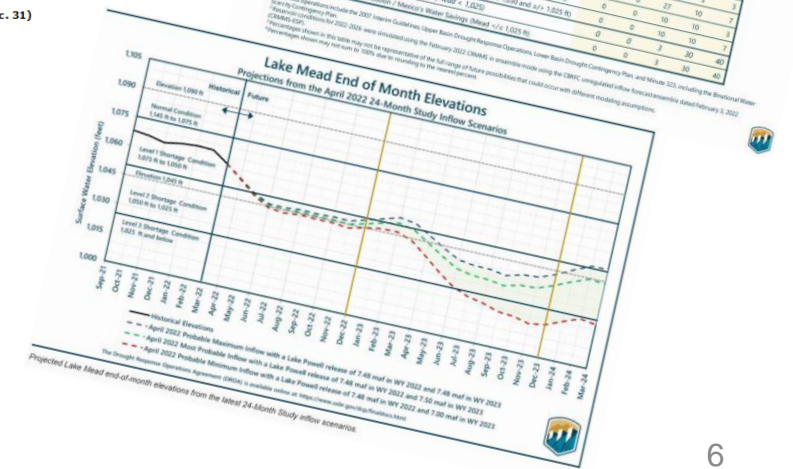
- Trigger 1: BOR April 5-year table shows > 15% probability of M&I shortage in third year
 - Met in 2021 with 5-Yr Probability tables showing increasing likelihood of shortage from April to August
- Trigger 2: BOR April 24-Month Study “Min Probable” forecast projects M&I shortage in second year
- Trigger 3: BOR April 24-Month Study “Most Probable” forecast projects M&I shortage in following year

CAP M&I Firming Timeline

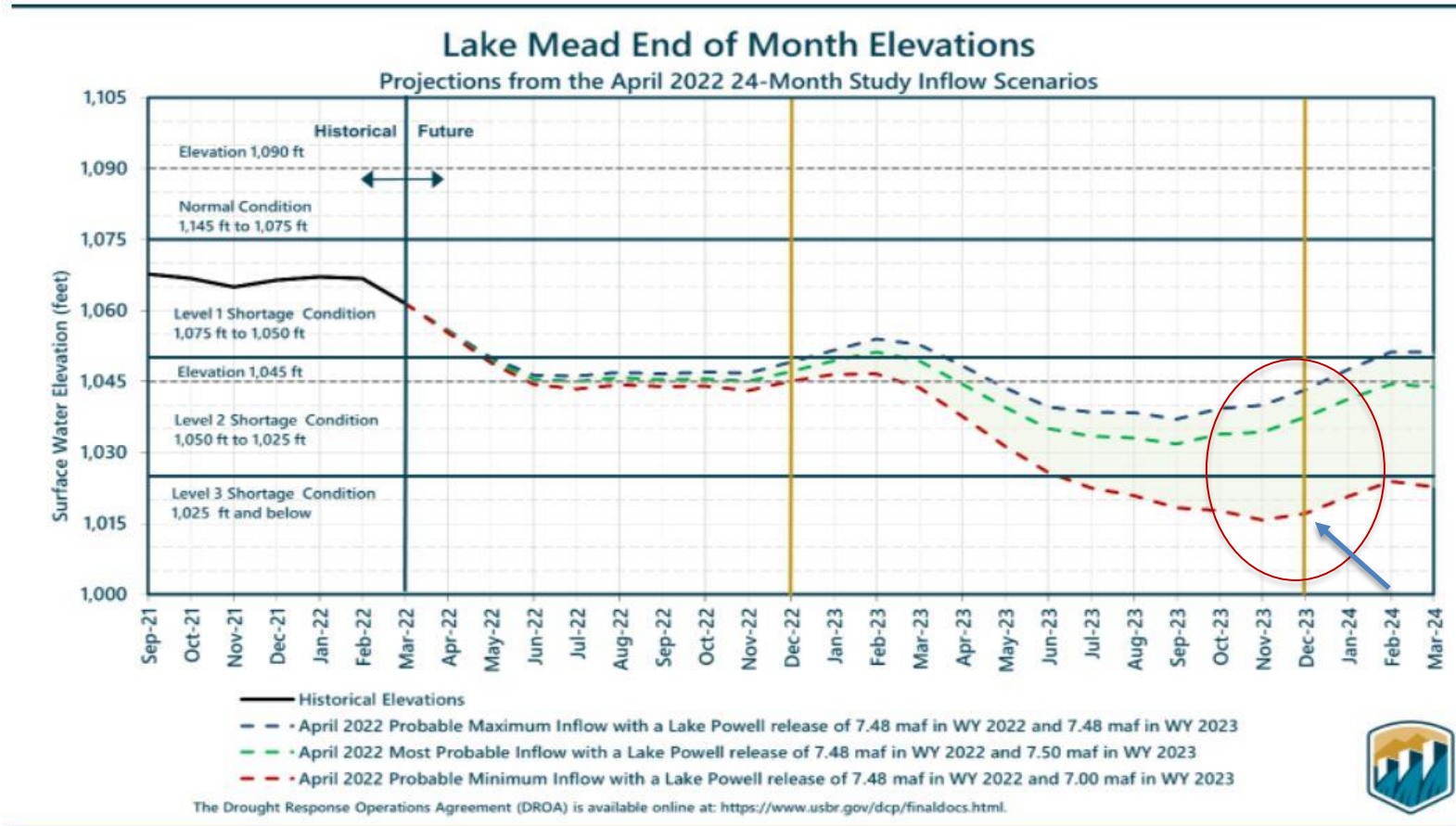


Lower Basin – Lake Mead
Percent of Traces with Event or System Condition
Results from February 2022 CMMMS-ESP (values in percent)

Event or System Condition	2022	2023	2024	2025	2026
Surplus Condition – any amount (Mead ≥ 1,045 ft)	0	0	0	0	0
Normal or ICS Surplus Condition (Mead ≥ 1,045 ft)	0	0	0	0	0
Recovery of DCP ICS 7 Mead's Water Savings (Mead ≥ 1,045 ft)	0	0	0	0	0
DCP Contribution / Mead's Water Savings (Mead ≥ 1,045 ft)	0	0	0	0	0
Shortage Condition – any amount (Mead < 1,045 ft)	0	0	0	0	0
Shortage / Reduction – 1st level (Mead < 1,045 ft)	0	0	0	0	0
DCP Contribution / Mead's Water Savings (Mead < 1,045 ft)	0	0	0	0	0
Shortage / Reduction – 2nd level (Mead < 1,045 ft)	0	0	0	0	0
DCP Contribution / Mead's Water Savings (Mead < 1,045 ft)	0	0	0	0	0
Shortage / Reduction – 3rd level (Mead < 1,045 ft)	0	0	0	0	0
DCP Contribution / Mead's Water Savings (Mead < 1,045 ft)	0	0	0	0	0
Shortage / Reduction – 4th level (Mead < 1,045 ft)	0	0	0	0	0
DCP Contribution / Mead's Water Savings (Mead < 1,045 ft)	0	0	0	0	0
Shortage / Reduction – 5th level (Mead < 1,045 ft)	0	0	0	0	0
DCP Contribution / Mead's Water Savings (Mead < 1,045 ft)	0	0	0	0	0
Shortage / Reduction – 6th level (Mead < 1,045 ft)	0	0	0	0	0
DCP Contribution / Mead's Water Savings (Mead < 1,045 ft)	0	0	0	0	0
Shortage / Reduction – 7th level (Mead < 1,045 ft)	0	0	0	0	0
DCP Contribution / Mead's Water Savings (Mead < 1,045 ft)	0	0	0	0	0
Shortage / Reduction – 8th level (Mead < 1,045 ft)	0	0	0	0	0
DCP Contribution / Mead's Water Savings (Mead < 1,045 ft)	0	0	0	0	0
Shortage / Reduction – 9th level (Mead < 1,045 ft)	0	0	0	0	0
DCP Contribution / Mead's Water Savings (Mead < 1,045 ft)	0	0	0	0	0
Shortage / Reduction – 10th level (Mead < 1,045 ft)	0	0	0	0	0
DCP Contribution / Mead's Water Savings (Mead < 1,045 ft)	0	0	0	0	0



Bureau of Reclamation April 2022 24-Month Study



Trigger 2 -

“Min Probable” indicates potential for a Tier 3 shortage in 2024

Projected Lake Mead end-of-month elevations from the latest 24-Month Study inflow scenarios.

M&I Firming - Operational Coordination

Two Years Prior to potential M&I firming year:

- Consultations meetings held in March with CAP M&I subcontractors on proposed firming method and credit distribution (CAP / Independent Recovery)
- CAWCD to provide notification of water availability in June “Water Delivery Schedule Request”
- Estimated firming volumes and methods included in AWBA Ten-Year Plan
- August 24-Month Study continues to indicate potential M&I firming
 - Notification/discussion at CAWCD Water Users Briefings
 - Initial requests for CAP recovery submitted with October 1 water orders.
- Estimated firming volumes and methods reported to CAWCD and AWBA governing bodies

M&I Firming - Operational Coordination

Year Prior to M&I firming year:

- AWBA, CAWCD and M&I subcontractors finalize estimated firming volumes and firming methods (January – May)
 - AWBA and CAP M&I subcontractors confirm firming method by May 15.
 - Firming agreements needed for CAP firming delivery and/or AWBA direct distribution of credits
 - Incorporated into AWBA Ten-Year Plan (June)
 - AWBA identifies credit for distribution (Aug)
- August 24-Month Study confirms shortage reductions in the following year
 - Notification of M&I supply estimates at CAWCD Water Users Briefings
 - Confirmed firming methods and estimated firming volumes identified in AWBA preliminary Plan of Operation (September)
 - Confirmed requests for CAP recovery submitted with water orders (October 1)
- Potential for adjustments based on actual CAP water orders
- CAWCD firming volumes included in approved final delivery schedules (November)
- Final credit distribution plan incorporated in AWBA Plan (December)

M&I Priority Subcontractor Firming Meetings

Initial consultations with CAP M&I subcontractors:

- Hosted 4 meetings: Pinal AMA, Tucson AMA, Phoenix AMA (East), Phoenix AMA (West)
- 21 subcontractors attended

Presentation topics:

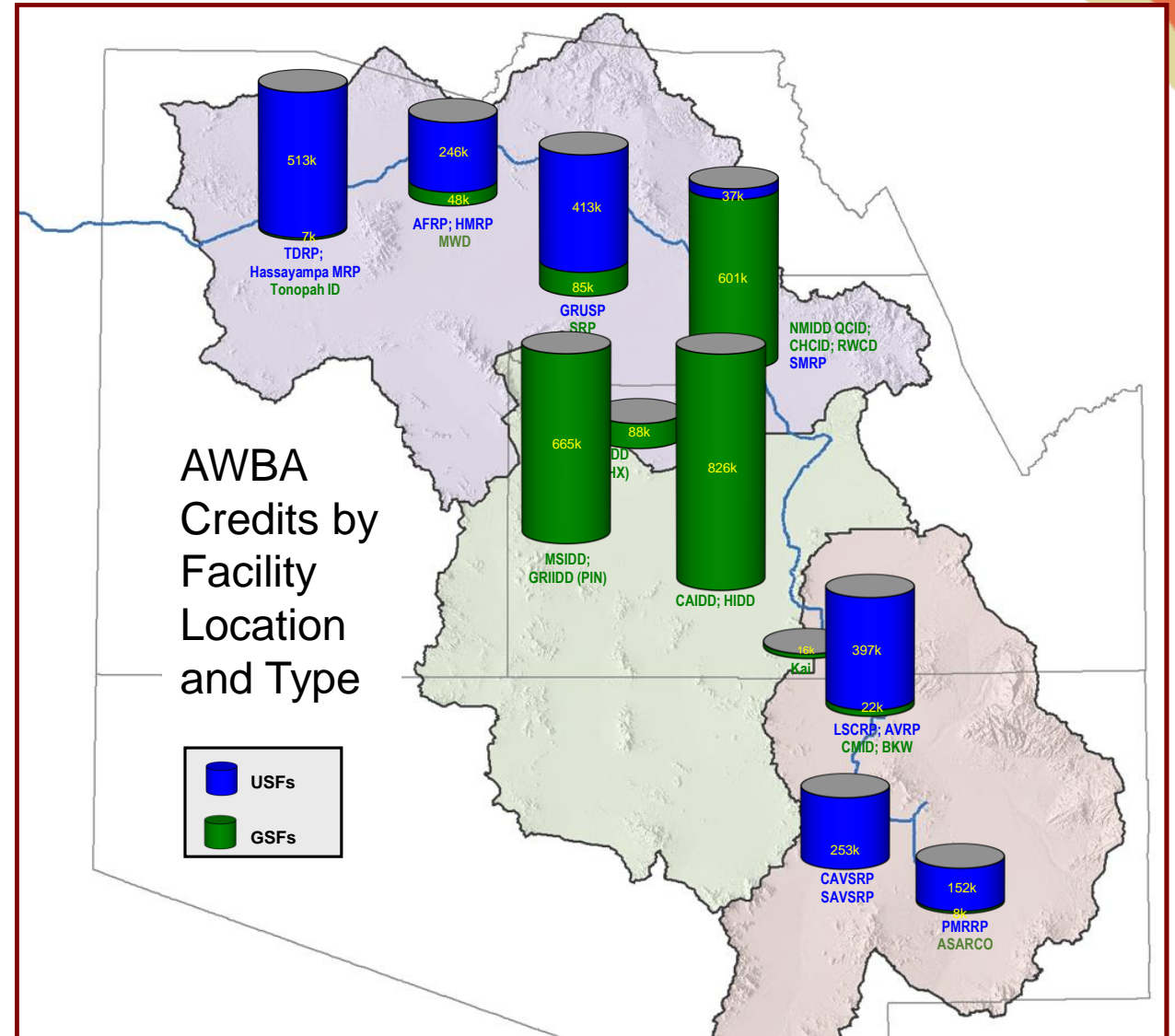
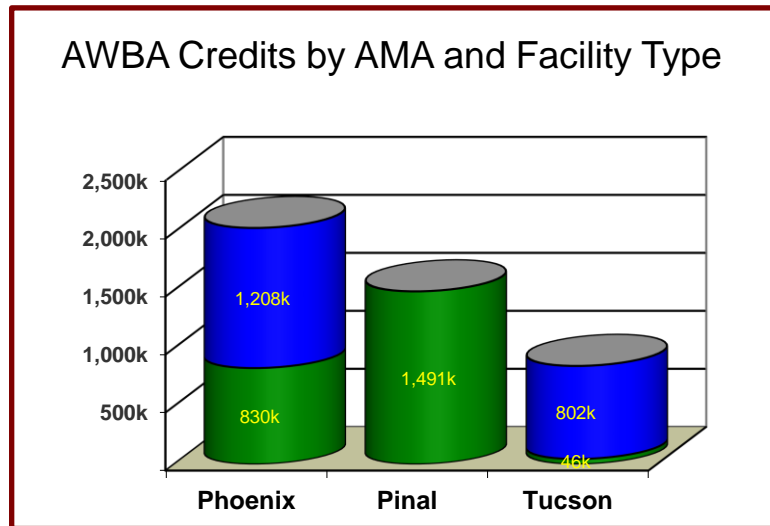
- Brief background of the AWBA's role during Colorado River shortages
- Impacts of potential supply reductions
- Recovery methods available for addressing these reductions

Feedback & discussion:

- Subcontractors confirmed what recovery methods they anticipate using
- Potential for more CAP recovery than anticipated in the East Valley
- The AWBA and CAP are welcoming discussions with individual subcontractors, and will update the recovery capacity analysis with new information collected

Storage Location

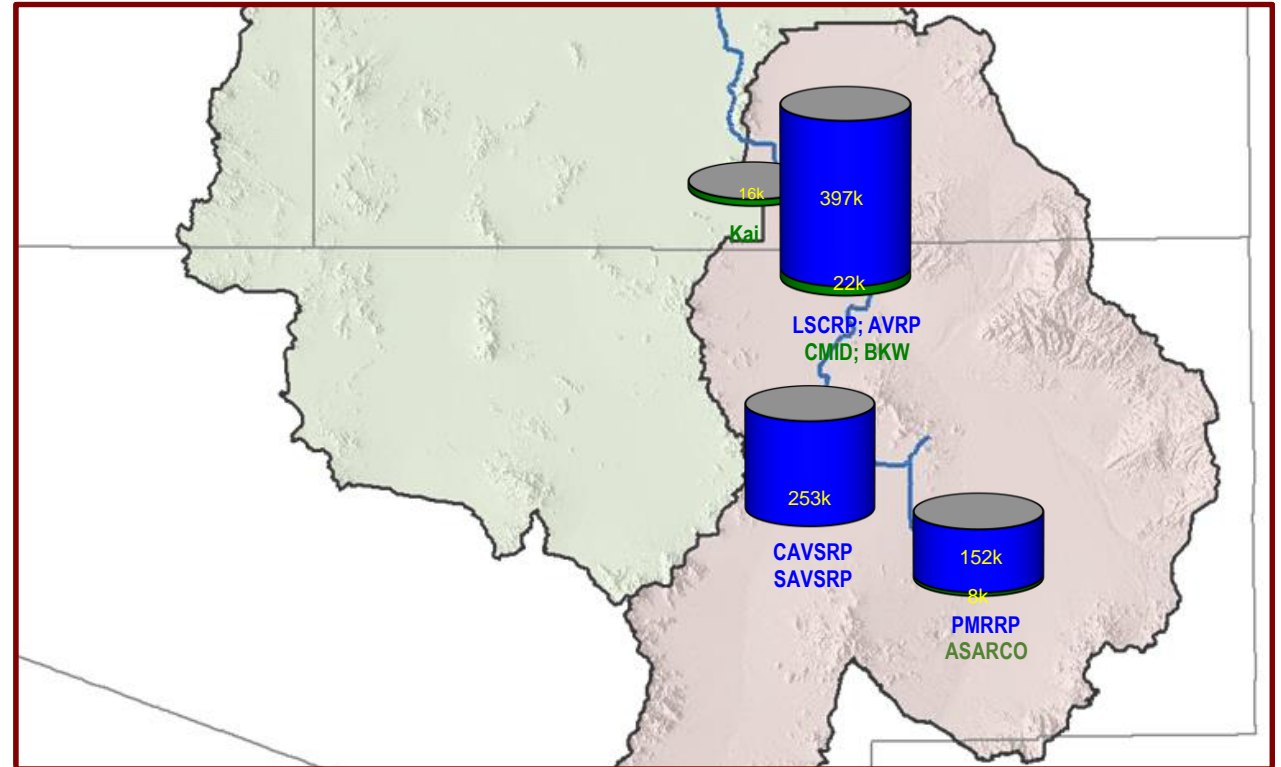
- All parties agree that the location of recovery, relative to storage, is an important consideration when AWBA credits are distributed



AWBA Credits by Facility Location and Type, through 2020

Recovery — Tucson AMA

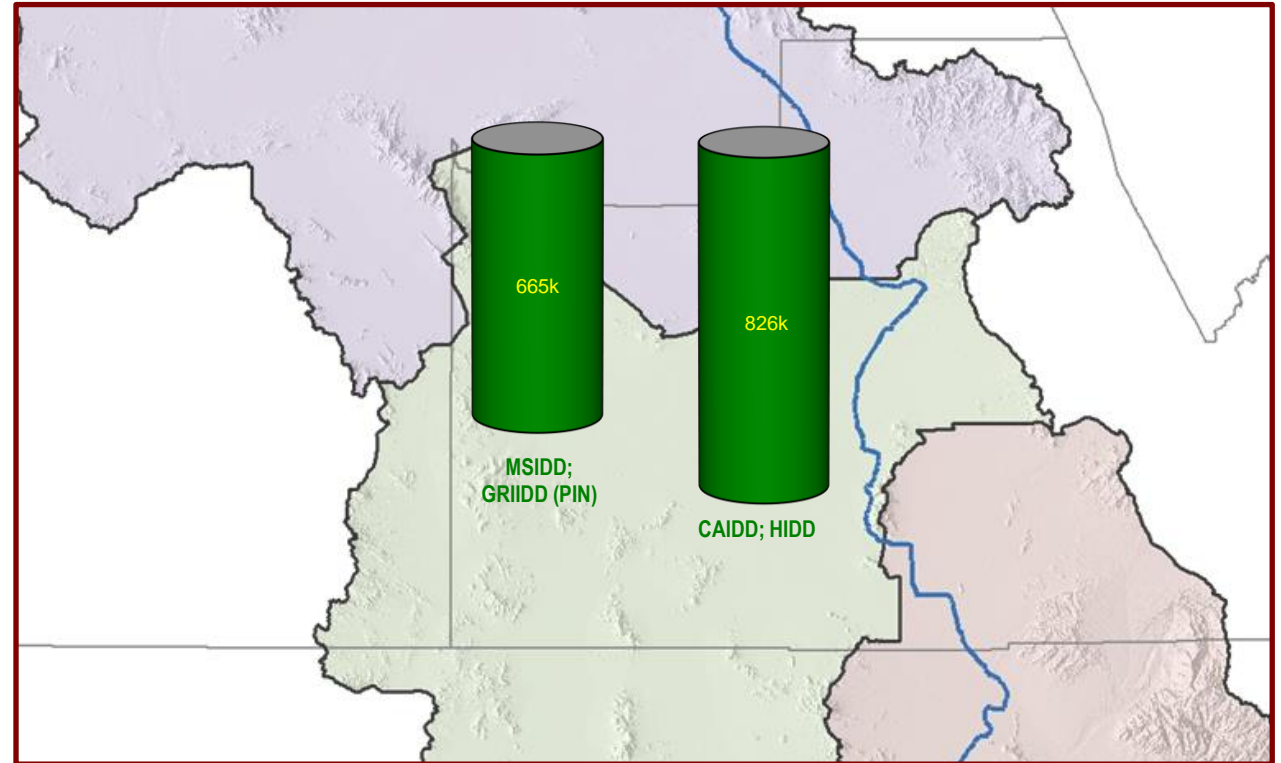
- Most Tucson AMA recovery is expected to be independent from CAP
 - Large existing recovery infrastructure
 - CAP's agreement with Tucson allows efficient recovery for Nevada



AWBA Credits by Facility Location and Type, through 2020

Recovery — Pinal AMA

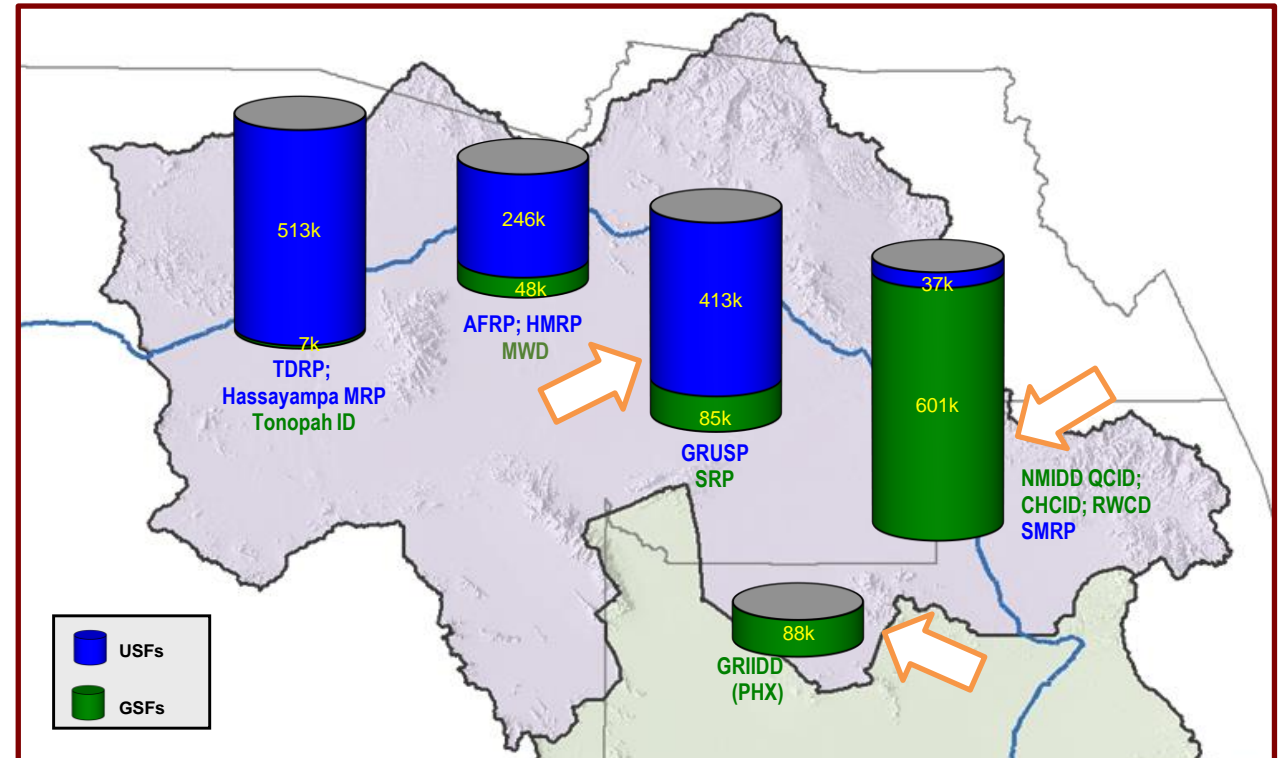
- Most Pinal AMA recovery will be performed by CAP, either directly or with partners
 - Existing Ag Recovery Capacity Agreements, and AZ Water Company agreement, partially address needs
 - Ongoing discussions with Hohokam IDD
 - Some Direct Recovery (i.e., discharge directly to the CAP canal) may be needed



AWBA Credits by Facility Location and Type, through 2020

Recovery — Phoenix AMA

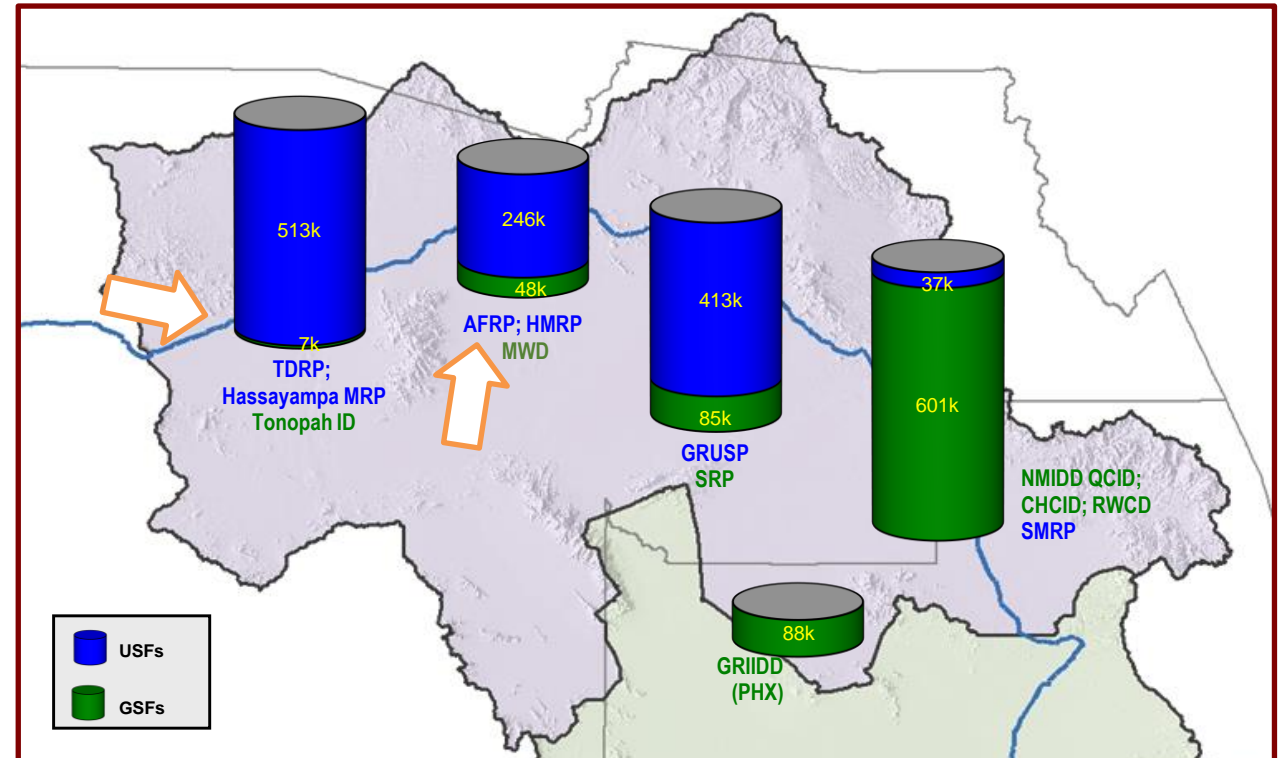
- Credits earned at the Gila River Indian Irrigation and Drainage District are anticipated to be utilized on-reservation
- In the southeast, Independent Recovery and use of CAP's Ag Recovery Capacity Agreements is expected
 - Direct Recovery with Ag district wells is also under consideration
- In the SRP territory, Independent Recovery predominates
 - Direct Recovery through the proposed SRP-CAP Interconnect is under consideration by CAP



AWBA Credits by Facility Location and Type, through 2020

Recovery — Phoenix AMA continued

- By the Agua Fria, Independent Recovery and use of the CAGRD Exchange is anticipated
- In the vicinity of the Tonopah Desert Recharge Project (TDRP), Direct Recovery and an Ag Exchange Agreement are being pursued
 - TDRP recovery remains a priority



AWBA Credits by Facility Location and Type, through 2020

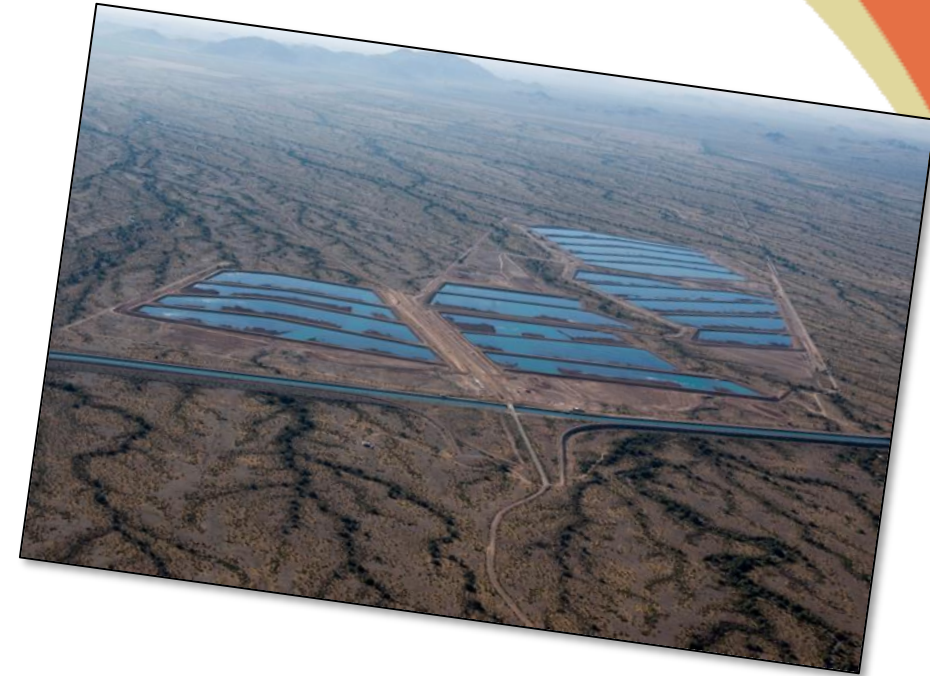
CAP Recovery Capacity Updates

- Amendments for 5,000 AF of additional recovery capacity in the Phoenix AMA have been executed
- Increases Phoenix AMA recovery capacity to 23,676 AF
- Ongoing discussions with Tonopah Irrigation District and landowners regarding recovery capacity agreements

CAP's Available Recovery Capacity by AMA				
AMA	Partner	Volume (AF)	Term	Conditions
Phoenix	CAGRD	6,426	Undefined	
	New Magma IDD	5,000	2024-2049	Phased In
	Queen Creek ID	2,250	2024-2049	
	RWCD	10,000	2008-2022	
	Phoenix AMA TOTAL	23,676		
Pinal	AZ Water Company	2,500	2025-2050	Interstate 1 st
	Central Arizona IDD	5,250	2027-2052	
	Maricopa-Stanfield IDD	5,000	2027-2052	
	Pinal AMA TOTAL	12,750		
Tucson	Tucson Water	10,000	2020-2050	Interstate only
	Tucson AMA TOTAL	10,000		
	GRAND TOTAL	41,426		

TDRP Direct Recovery

- Direct recovery capacity remains an objective for CAP
 - The geophysical and water quality attributes at TDRP have required a reassessment of wellfield design and capacity expectations
 - Capacity volumes are more in-line to reflect updated recovery plans
- TDRP Direct Recovery Plan
 - Wells located within and outside of the TDRP site
 - Target capacity of 10-15,000 KAF/year phased-in over time
 - Treatment options and associated costs refined based on new recovery wells



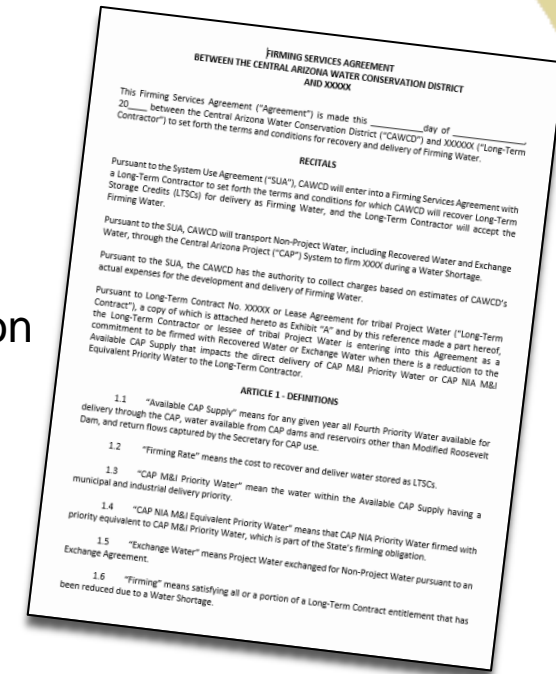
M&I Firming Agreements

AWBA Standard Template M&I Firming Agreement

- Draft distributed to subcontractors April 26
- Meetings held on May 10th and 11th for questions and comments
- Reviewing comments received
- Final draft to be presented at the AWBA June meeting for approval

CAWCD M&I Firming Services Agreement

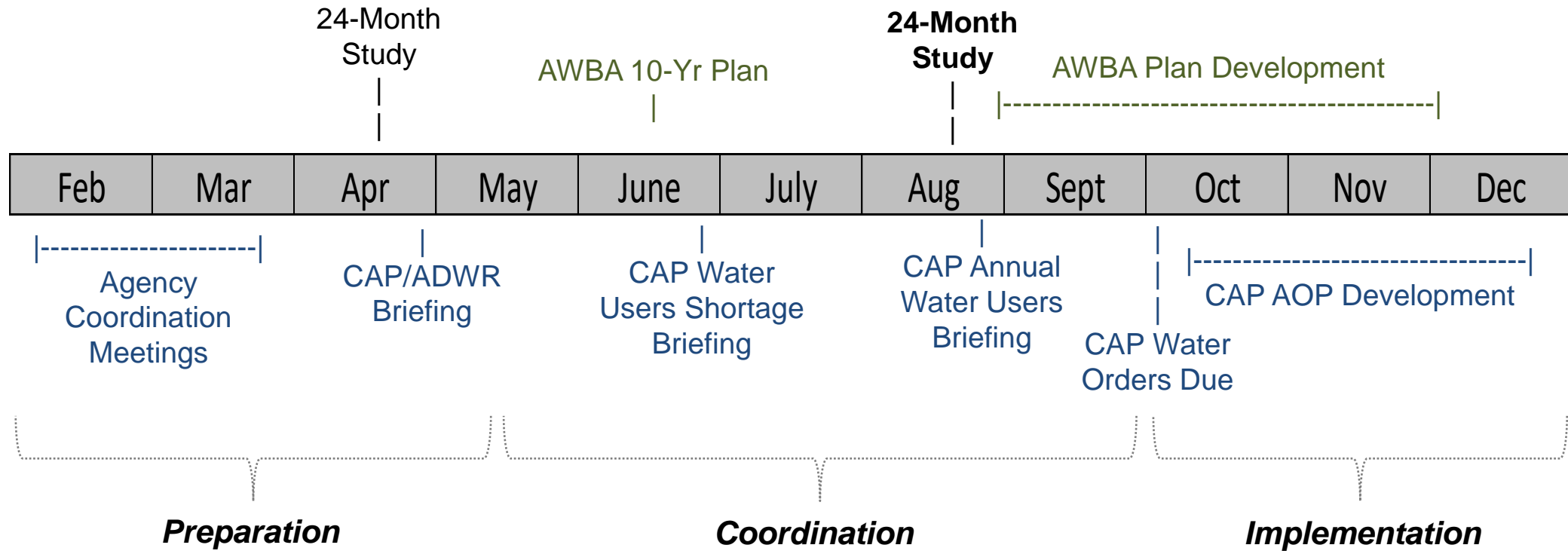
- M&I Firming Services Agreement Timeline
 - Draft agreement will be shared with M&I subcontractors
 - Final draft will require CAWCD Board approval
 - Finalize and execute agreements by quarter 3 of 2022
 - Firming volume estimates for 2023/2024 requested with agreement execution
- What to expect?
 - Supplemental water delivery contract with subcontract as an exhibit
 - Will incorporate subcontract terms and conditions
 - Language regarding requested recovery volumes
 - Payment provisions
 - Liability provisions for firming water, i.e. water quality, recovery partners ability to perform





Member Roundtable

Next Steps





Public Comments